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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
02886.0086-00

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on _____

Signature _____

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Application Number	Filed
10/713,255	November 17, 2003
First Named Inventor	
Takahiko FUJIWARA	
Art Unit	**Examiner**
1795	K. HANDAL

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.

☒ attorney or agent of record.
Registration number 54,257.

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

Jennifer Leach
Signature

Typed or printed name

202-408-4325
Telephone number

July 11, 2008
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 form is submitted.

REMARKS

Claims 1 and 3-4 are pending.

Applicant would like to thank the Examiner for the courtesy extended to Applicant's representative during the May 14, 2008, telephone interview. The Substance of the Interview that is included in the Interview Summary mailed May 21, 2008, accurately reflects our discussions on that date.

The Examiner has rejected claims 1 and 3-4 under 35 U.S.C. § 103(a) as allegedly "being unpatentable over" U.S. Patent No. 5,804,148 ("Kanesaka") in view of U.S. Patent No. 5,108,716 ("Nishizawa") and further in view of U.S. Patent No. 6,047,544 ("Yamamoto"). Final Office Action at 2. Applicant respectfully traverses the rejection for at least the following reasons.

The Examiner has not established a *prima facie* showing of obviousness. Several basic factual inquires must be made in order to determine whether the claims of a patent application are obvious under 35 U.S.C. § 103. These factual inquiries, set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), require the Examiner to:

> (1) Determine the scope and content of the prior art;
> (2) Ascertain the differences between the prior art and the claims in issue;
> (3) Resolve the level of ordinary skill in the pertinent art; and
> (4) Evaluate evidence of secondary considerations.

The obviousness or non-obviousness of the claimed invention is then evaluated in view of the results of these inquiries. *Graham*, 383 U.S. at 17-18, 148 USPQ 467; *see also KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1734 (2007).

In order to satisfy the initial burden of establishing a *prima facie* case of obviousness, the examiner must:

> make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. Knowledge of applicant's disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences, "conduct the search and evaluate the "subject matter

> as a whole" of the invention. The tendency to resort to "hindsight" based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

M.P.E.P. § 2142. Here, Kanesaka, Nishizawa, and Yamamoto fail to teach or suggest all of Applicant's claim limitations. Kanesaka discloses, in Figure 1, an HC adsorbent (3) and an oxidizing catalyst (4) arranged in an identical housing. However, this is different from an HC adsorption-purifying catalyst comprising an HC adsorbent layer on a substrate and an oxidizing layer on the HC adsorbent layer of the presently claimed invention. *See*, e.g., claim 1. Nishizawa and Yamamoto do no remedy this deficiency in Kanesaka.

In addition, Kanesaka, Nishizawa and Yamamoto fail to teach or suggest that "a loading amount of the high loading portion of the three-way catalyst is twice or more of a loading amount of the ordinary portion of the three-way catalyst." Indeed, the Examiner admits this deficiency in the references on page 3 of the Final Office Action.

The Examiner relies on Nishizawa as teaching "a three-way catalyst . . . comprised on noble metal loaded higher on a high loading portion disposed on an upstream part of the three-way catalyst/metal than on the ordinary portion of the three-way catalyst . . . ." Final Office Action at 3. While Nishizawa teaches that the amount of catalytic metals is larger in a first three-way catalyst than in a second three-way catalyst (two different three-way catalysts), see Abstract, column 4, lines 41-43, and Fig. 1, Nishizawa does not teach or suggest a loading amount of the high loading portion of the three-way catalyst is twice or more of a loading amount of the ordinary portion of the same three-way catalyst. Thus, the Examiner has failed to establish that the claimed invention is *prima facie* obvious over Kanesaka, Nishizawa and Yamamoto.

Moreover, "[a] greater than expected result is an evidentiary factor pertinent to the legal conclusion of obviousness." *In re Corkill*, 771 F.2d 1496, 1501, 226 U.S.P.Q. 1005, 1009 (Fed.

Cir. 1985). Applicant submits that one of ordinary skill in the art would not have expected the "multiplier effect" obtained by the claimed apparatus. One of ordinary skill in the art would have expected only a cumulative effect of the upstream and downstream catalysts. Indeed, in the Amendment under 37 C.F.R. § 1.116 filed March 26, 2008, Applicant directed the Examiner's attention to Figure 3 of the present specification, which compares Experimental Example No. 1 (EE1) and Comparative Example No. 1 (CE1). As shown in Fig. 3, the apparatus of the present invention does not exhibit merely the sum of both catalysts' effect, but rather, exhibits a multiplier effect thereof.

Figure 3 shows that the difference (ΔA) of HC amount in an outlet gas of HC adsorption-purifying catalyst is larger than the difference (ΔB) of HC amount in an inlet gas of HC adsorption-purifying catalyst ($\Delta B < \Delta A$). The difference (ΔB) of HC amount in an inlet gas of HC adsorption-purifying catalyst indicates the effect due to a three-way catalyst in which a noble metal is loaded on an upstream side in high concentration. However, the difference (ΔA) of HC amount in an outlet gas of HC adsorption-purifying catalyst indicates the effect due to a three-way catalyst in which a noble metal is loaded on an upstream side in high concentration, and the effect due to HC adsorption-purifying catalyst disposed on a downstream side. Since EE1 and CE1 use the same HC adsorption-purifying catalyst disposed on a downstream side, it is apparent that the present invention exhibits a multiplier effect due to the second catalyst, a three-way catalyst wherein the amount of noble metal loaded on the high loading portion of the three-way catalyst is twice or more than the amount of noble metal loaded on the ordinary portion of the three-way catalyst. One of ordinary skill in the art would not have expected such a multiplier effect, as demonstrated by the present invention.

The Examiner was not persuaded by this evidence. The Examiner and Applicant's representative discussed the evidence in a telephone interview on May 14, 2008. In the Examiner's Interview Summary mailed May 21, 2008, the Examiner pointed out that

> [the] multiplier effect would have been expected because Nishizawa suggests that increasing the noble metal on the upstream side of his three-way catalyst improves catalyst activation promoting characteristics of the first catalyst at low temperatures (see Abstract); therefore, one of ordinary skill in the art would have optimized, by routine experimentation, the amount of catalyst loaded on the upstream side and obtained results similar to those in the instant application.

Applicants respectfully disagree. An Applicant can rebut a *prima facie* case of obviousness based on "optimization" by showing that a claimed range achieves unexpected results relative to the prior art range. *See* M.P.E.P. § 2144.05(III). Here, Applicant has demonstrated that the claimed loading amount of the three-way catalyst provides unexpected results. As discussed above, Figure 3 demonstrates that the present invention exhibits a multiplier effect in reducing HC emissions due to the second catalyst, a three-way catalyst wherein the amount of noble metal loaded on the high loading portion of the three-way catalyst is twice or more than the amount of noble metal loaded on the ordinary portion of the three-way catalyst. One of ordinary skill in the art would not have expected such a multiplier effect, as demonstrated by the present invention.

Finally, when an applicant submits comparative testing to show unexpected results, the comparative testing "'must be sufficient to permit a conclusion respecting the relative effectiveness of applicant's claimed compounds and the compounds of the closest prior art,' and must 'provide an adequate basis to support a legal conclusion of unobviousness.'" *In re Geiger*, 815 F.2d 686, 689, 2 U.S.P.Q.2d 1276, 1279 (Fed. Cir. 1987) (Newman, J., concurring) (citations omitted). An applicant, however, is not required to compare the claimed invention with subject matter that does not exist in the prior art. 815 F.2d at 690, 2 U.S.P.Q.2d at 1279. That is, an Applicant is not required to compare the claimed subject matter with an invention suggested by a combination of references relied upon in a § 103 rejection because requiring the applicant to do so "would amount to requiring comparison of the results of the invention with the results of the invention." *See In re Chapman*, 357 F.2d 418, 422, 148 U.S.P.Q. 711, 714

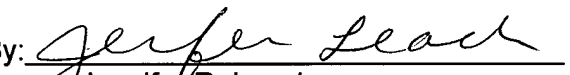
(C.C.P.A. 1966). Here, the Examiner is requiring comparative results for the combination of references, rather than compared to the primary reference, as is the legal standard. Such a comparison is not a proper requirement for establishing unexpected results that rebut obviousness. 357 F.2d at 422, 148 U.S.P.Q. at 714; *see also* M.P.E.P. § 716.02(e)(III).

For at least the foregoing reasons, Applicant submits that the Examiner has not established a *prima facie* case of obviousness. Moreover, Applicant has presented sufficient evidence to rebut any *prima facie* showing. Accordingly, Applicants respectfully request reconsideration of this application, withdrawal of the outstanding § 103(a) rejection, and timely allowance of the pending claims.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: July 11, 2008

By: 
Jennifer R. Leach
Reg. No. 54,257